MYCELX WATER TECHNOLOGIES

CASE STUDY

PFAS Treatment System – DoD Site

Cavalier Space Force Station

CUSTOMER: DoD Contractor

LOCATION: Cavalier, ND

Application

Treatment of AFFF/ PFAS Contaminated Groundwater

DESIGN FLOW RATE: **500 GPM**

TREATMENT VOLUME: ~ **2,000,000 GALLONS**

TREATMENT OBJECTIVE:
Reduce PFAS levels to comply with EPA MCL's

PFOS: 4 ng/L	**PFHxS: 10ng/L**
PFOA: 4 ng/L	**PFNA: 10 ng/L**
GenX: 10 ng/L	**Hazard Index: 1.0 (unitless)**

THIRD PARTY RESULTS:
Pace Labs, an EPA and DoD certified lab – Confirmed MYCELX's treatment system, tested under EPA 1633 method, **reduced 40 PFAS to Non-Detect levels.**

PROJECT OVERVIEW

MYCELX Water Technologies was selected to deploy a mobile PFAS remediation system to treat contaminated groundwater at a strategically important U.S. Space Force site in Cavalier, North Dakota. Per- and Polyfluoroalkyl substances (PFAS) contamination in groundwater is due the presence of a PFAS release area of a former AFFF spray test area 1500 feet from the site.

The project required the treatment of **~ 2,000,000 gallons** of groundwater contaminated with per- and polyfluoroalkyl substances (PFAS), with total PFAS concentrations exceeding **1600 parts per trillion (ppt)**—well above EPA MCL's and DoD interim screening levels.

SOLUTION

To ensure optimal field performance, MYCELX engineers conducted a laboratory treatability study using actual site water samples. The in-house study allowed for accurate system sizing and media selection, providing data that translated directly to full-scale results in the field.

Field performance confirmed the lab findings, validating the technology's ability to meet site-specific treatment goals under real-world operating conditions.

Groundwater was pumped into a temporary holding system and then processed through a **mobile, modular MYCELX treatment unit** designed for 500 gpm.

RESULTS

The system successfully achieved treatment objectives with minimal maintenance.

Samples were analyzed every 50,000 gallons using **EPA Method 1633**. Post-treatment testing confirmed **non-detect levels** for all regulated PFAS constituents. The MYCELX system met or exceeded all regulatory discharge limits and project-specific performance targets.

This successful deployment demonstrated MYCELX's ability to deliver **high-performance, sustainable PFAS remediation** at military installations. The technology's small footprint, low waste output, and reliable results position it as a leading solution for DoD and other federal PFAS treatment applications.

PACE Labs Analytical Results

Analyte	Avg. Influent (ng/L)	Effluent (ng/L)	% Removal
PFBS	16	ND	>99.99%
PFBA	35	ND	>99.99%
PFHpS	9	ND	>99.99%
PFHpA	52	ND	>99.99%
PFHxS	853	ND	>99.99%
PFHxA	115	ND	>99.99%
PFNA	4	ND	>99.99%
PFOS	203	ND	>99.99%
PFOA	150	ND	>99.99%
PFPeS	41	ND	>99.99%
PFPeA	151	ND	>99.99%
Total	**1628**	ND	>99.99%